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**MA./M.Sc. (Fourth Semester)
EXAMINATION, May - June, 2022
ANTHROPOLOGY
(Group-A : Physical Anthropology)
Paper First
(Medical Genetics)**

Time : Three Hours]

[Maximum Marks:80

Note: Attempt all sections as directed.

**(Section - A)
(Objective/Multiple Choice Questions)**

(1 mark each)

Note: Attempt all questions.

Choose the correct answer:

1. Medical anthropology is studied:
- (A) Skeleton
 - (B) Disease
 - (C) Mental health
 - (D) All of the above

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2. An abnormal human baby with 'XXX' sex chromosomes was born due to:
- (A) Formation of abnormal ova in the mother
 - (B) Formation of abnormal sperm in the father
 - (C) Fusion of two ova and one sperm
 - (D) Fusion of two sperm and one ovum
3. Which of the following is a correct match?
- (A) Parkinson's disease - X and Y chromosome
 - (B) Sickle cell anaemia - X chromosome
 - (C) Down's syndrome - 21st chromosome
 - (D) Haemophilia - Y chromosome
4. Albinism is a congenital disorder resulting from the lack of which enzyme?
- (A) Xanthine oxidase
 - (B) Catalase
 - (C) Fructokinase
 - (D) Tyrosinase
5. Cri - du- chat syndrome in humans is caused by the:
- (A) Trisomy of 21st chromosome
 - (B) Fertilization of an XX egg by abnormal Y - bearing sperm
 - (C) Loss of half of the short arm of chromosome 5
 - (D) Loss of half of the long arm of chromosome 5

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6. The most striking example of point mutation is found in a disease called:
- (A) Down's syndrome
 - (B) Sickle cell anemia
 - (C) Night blindness
 - (D) Thalassemia
7. Sickle cell anemia has not been eliminated from the African population because
- (A) It is controlled by dominant genes
 - (B) It is controlled by recessive genes
 - (C) It is not a fatal disease
 - (D) It provides immunity against malaria
8. Christmas disease is another name for:
- (A) Haemophilia B
 - (B) Hepatitis B
 - (C) Down's syndrome
 - (D) Sleeping sickness
9. Retinoblastoma is caused by loss of both copies of the RB gene in the chromosome band:
- (A) 13 q 14
 - (B) 13 q 11
 - (C) 13 p 11
 - (D) 21 q 14

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10. Position effect is the result of:
- (A) Mutation
 - (B) Deletions
 - (C) Inversions
 - (D) Transversions
11. Full form of RFT is:
- (A) Renal flow time
 - (B) Renal function test
 - (C) Renal flow track
 - (D) None of the above
12. The term 'Inborn errors of metabolism' was coined by:
- (A) Bateson
 - (B) Mendel
 - (C) Victor McKusick
 - (D) Garrod
13. Rheumatoid arthritis is a:
- (A) Auto-immune disease
 - (B) Sex-transmitted disease
 - (C) Communicable disease
 - (D) Non-communicable disease

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14. Tay - Sachs disease is:
- (A) X - linked disorder
 - (B) Polygenic disorder
 - (C) Autosomal recessive disorder
 - (D) Autosomal dominant disorder
15. To make a Karyotype, chromosomes are photographed during:
- (A) Mitosis
 - (B) Meiosis
 - (C) Fertilization
 - (D) Interphase
16. How many chromosomes are there in man?
- (A) 43
 - (B) 45
 - (C) 46
 - (D) 47
17. Which type of chromosome is not found in man?
- (A) Areocentric
 - (B) Metacentric
 - (C) Submetacentric
 - (D) Telocentric

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18. One of the major symptoms of coronary artery disease is:
- (A) Headache
 - (B) Sleep problems
 - (C) Diarrhoea
 - (D) Pain or discomfort in the chest, lower jaw or arms
19. Ischemia is:
- (A) Restriction of blood supply to tissues
 - (B) Overflow of blood to tissues
 - (C) Inadequate deoxygenated blood carrying veins
 - (D) The medical term of shortness of breath
20. A break in the living of the lower part of the esophagus, the stomach, or the upper part of the small intestine is caused due to:
- (A) Gastric
 - (B) Peptic ulcer
 - (C) Duodenal ulcers
 - (D) Cirrhosis of liver

Section - B

(Very Short Answer Type Questions)

(2 marks each)

Note: Attempt all questions.

1. How is Tay-sachs disease diagnosed?

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2. What is the difference between cleft lip & palate?
3. Write an overview of Ichthyosis.
4. Write brief note on 'Brachydactyly'.
5. What causes peptic ulcer?
6. What is Hypoglycaemia?
7. What are the major risk factors for coronary heart disease.
8. Write these major scopes of medical genetics.

Section - C

(Short Answer Type Questions)

(3 marks each)

Note: Attempt all questions.

1. Giving illustrations explain 'Inversion'.
2. What is 'Philadelphia chromosome'? Explain.
3. Write a brief note on 'Ring chromosome'.
4. Briefly describe the characteristic features of Glucoma.
5. What are the causes of 'Nail Patella Syndrome'?
6. What are twins? Describe various types of twins.
7. What are the symptoms of Goitre?
8. Write a brief note on 'Cretinism'.

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Section - D

(Long Answer Type Questions)

(5 marks each)

Note: Attempt all questions.

1. What are the bases of chromosomal classification in man? In what way the group - C chromosomes differ from those belonging to Group-F and from those belonging to group -A?
2. Describe in detail the pedigree method of studying human heredity. Give suitable examples.
3. What is 'Hypertension'? Describe consequences of it.
4. Write a brief essay on Rheumatoid arthritis'.